

What is claimed is:

1. A method for purifying teicoplanin A₂ comprising:

(i) a primary pre-purification step of purifying a filtrate of fermentation broth of a strain using a synthetic adsorbent;

5 (ii) a secondary pre-purification step of purifying the primary pre-purification solution using a cation exchange resin having a high cross-linkage, a catalytic resin or a chelate resin;

(iii) a final purification step of purifying the secondary pre-purification solution using a reverse phased resin; and

10 (iv) a powder-forming step.

2. The method according to claim 1, wherein the synthetic adsorbent is at least one selected from the group consisting of high porous styrene type synthetic adsorbents, high porous styrene type synthetic adsorbents having bromine chemically substituted, high porous styrene/divinyl polymers, macroreticularly cross-linked
15 polymer, macroreticularly cross-linked aliphatic polymer, macroreticularly cross-linked aromatic polymer, methacrylic synthetic adsorbents and carbonaceous synthetic adsorbents comprising a high porosity styrene/divinyl benzene ion exchange resin.

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3. The method according to claim 2, wherein the synthetic adsorbent is at least one selected from the group consisting of DIAION SP207, DIAION SP700, DIAION SP825, DIAION SP850, DIAION HP2MG, AMBERLITE XAD 4, AMBERLITE XAD 7, AMBERLITE XAD 1600T, AMBERSORB 563, AMBERSORB 572,
25 AMBERSORB 600, Lewatit VP OC 1064, Lewatit VP OC 1066 and Lewatit EP 63.

4. The method according to claim 1, wherein the eluent used in the primary pre-purification is purified water containing acetone in a concentration of 50 to 80%.

5 5. The method according to claim 1, wherein the resin used in the secondary pre-purification is one selected among the gel or porous type cation exchange resins, catalytic resins and chelate resins which have a high cross-linkage of over 8% and are composed of high porous poly styrene divinyl polymer and have a sulphonate or iminoacetate group.

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6. The method according to claim 5, wherein the resin used in the secondary pre-purification is one selected from the group consisting of DIAION SK1B, DIAION PK216, DIAION CR11, DIAION CR20, DIAION UBK555, TRILITE SPC 160H, TRILITE SPC 180H, TRILITE SPC 400LH, AMBERLITE 200C Na, AMBERLITE CG50, AMBERLITE CR1310 Na, AMBERJET 200H, AMBERLYST 131 WET, AMBERLYST 232 WET, Lewatit VP OC 1800, Lewatit VP OC 1812, Lewatit MDS1368 Na, Lewatit K1221, PUROLITE PCR833CA, PUROLITE C145, MFG 210 and MFG 250.

20 7. The method according to claim 6, wherein the resin used in the secondary pre-purification is regenerated by sequentially washing it with sodium hydroxide and a weak acid solution such as acetic acid or diluted hydrochloric acid and then, purified water so that the final eluate of purified water is in the range of pH 4.5 to 7.0.

8. The method according to claim 1, wherein the eluent used in the secondary pre-purification is purified water in the range of pH 10 to 13.

9. The method according to claim 1, wherein the reversed phase resin comprises
5 a silica containing non-polar side chain having 1 to 18 carbon and having a particle size of 15 to 150 μm .

10. The method according to claim 9, wherein the reversed phase resin is one selected from the group consisting of SK-GEL ODS S-15/30, Flash KP-C18-HS,
10 DAISOGEL 3001A and DMS DM 1020.

11. The method according to claim 1, wherein the eluent used in the final purification step is purified water containing acetone or acetonitrile in a concentration of 20 to 30%.

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